

2016 SPECIAL ISSUE

MCU Journal

CLIMATE CHANGE & POLICY

Published by Marine Corps University Press

Richard Nixon, Barack Obama, and the Road to American Climate Change Policy

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Abstract: Lying at the intersection of public opinion, science, and partisan politics, the debate over climate change has grown with each successive president from Richard M. Nixon to Barack H. Obama. This article argues that these two presidents, from different parties, in different eras, and with different motivations, did the most to advance federal policy. Nixon's actions laid the foundation for Obama's activism, defining the realm of possible. In a similar sense, Obama has also set the parameters of the debate for his own successors, whomever they may be.

Keywords: global warming, climate change, Richard Nixon, Barack Obama, cap-and-trade, carbon emissions, clean air act

In mid-September 1969, President Richard M. Nixon's top domestic advisor, John D. Ehrlichman, received an urgent memo from Daniel Patrick Moynihan, the new White House counsel. Moynihan, an intellectual with a doctorate from Syracuse University and a long record in Democratic Party politics, had come to appreciate Nixon's recent embrace of environmental activism and now insisted that he had an issue that demanded the president's immediate attention. "Carbon dioxide in the atmosphere has the effect of a pane of glass in a greenhouse," Moynihan explained to Ehrlichman. The burning of fossil fuels

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MCU Journal 2016 special issue
Climate Change & Policy
www.mcu.usmc.mil/mcu_press
doi:10.21140/mcu.j.2016si02

could raise atmospheric CO₂, which in turn could raise global temperatures. “Over the years the hypothesis has been refined,” Moynihan added, “and more evidence has come along to support it.” At the time, it seemed that if the process continued, sea levels could rise with devastating effects: “Goodbye New York. Goodbye Washington, for that matter.” Moynihan acknowledged reservations, “It is entirely possible that there will be countervailing effects.” For one, “an increase of dust . . . would tend to lower temperatures.” Moreover, it was “possible to conceive fairly mammoth man-made efforts to countervail the CO₂ rise.” In any event, it was a subject “that the administration ought to get involved with.” It was a “natural” for the North Atlantic Treaty Organization and the administration should act quickly.¹

Just more than 43 years later, on 12 February 2013, President Barack H. Obama stood before Congress for his first State of the Union Address since his reelection. He had raised the topic of climate change in his 2010 and 2012 addresses, but this time he was more explicit and obviously exasperated. A Republican Congress had blocked many of his initiatives and Obama wanted to impart a sense of urgency. “For the sake of our children and our future, we must do more to combat climate change,” Obama declared. “Heat waves, droughts, wildfires, floods—all are now more frequent and more intense.” Americans could “choose to believe” that it all was “just a freak coincidence” or they could accept “the overwhelming judgment of science and act before it’s too late.” There was no more time to wait. “If Congress won’t act soon to protect future generations,” Obama concluded, “I will.” He was directing his cabinet to “come up with executive actions we can take, now and in the future.”²

For almost half a century, from the arrival of the issue in presidential politics during the Nixon administration until its dominant place in the national discourse during the Obama presidency, global climate change has sparked controversy and discord. Progress has been real, but slow and halting. Lying at the intersection of public opinion, science, and partisan politics, the debate over climate change has grown with each successive presidency. The activist agenda of the Obama administration, both its successes and failures, had antecedents. In fact, America’s record in facing the threat of climate change is unique and surprising. Two presidents—Nixon and Obama, from different generations, different parties, and with different motivations, one at the dawn of environmentalism and the other still struggling to maintain its momentum today—proved to have the strongest records in addressing the issue. In many respects, Nixon laid the foundation for Obama’s activism, his presidency defining the realm of possible for his successor. Obama has done the same, setting the table for whoever follows. The future is uncertain but the strong legacies of this presidential odd couple are not.

Moynihan was correct that, by the late 1960s, many scientists had begun to

conclude that, yes, CO₂ released by the burning of fossil fuels did in fact contribute to the greenhouse effect. It had been almost 75 years since the Swedish scientist Svante A. Arrhenius had proposed that a relationship existed between atmospheric CO₂ concentrations and global temperatures.³ By the 1930s, scientists had documented that the North Atlantic region had warmed considerably over the previous half century, and by the 1950s, funding for science as part of the Cold War had provided more accurate assessment measures. By the late 1950s, scientist Charles D. Keeling had begun to produce the first concentration curves for atmospheric CO₂, which proved iconic in the science of global warming. With the United States dispatching its first meteorological satellite in April 1960, the United Nations in 1962 called for organization of the scientific community to advance atmospheric and climate science. By 1965, a Global Atmospheric Research Program existed and a Joint Organizing Committee of leading international scientists promised significant advances due to new computer modeling. By 1968, some models had even projected the possibility that collapsing Antarctic ice sheets would raise sea levels catastrophically.⁴

The early results of such a study caught Moynihan's eye. They did not, however, convince his colleagues. Hubert Heffner, deputy director of Nixon's Office of Science and Technology Policy, acknowledged that the administration should take note but expressed reservations. "The more I get into this, the more I find two classes of doom-sayers, with, of course, the silent majority in between," he responded. Heffner worried that "One group says we will turn into snow-tripping mastodons because of atmospheric dust and the other says that we will have to grow gills to survive the increased ocean level due to temperature rise."⁵ If Moynihan's concerns proved farsighted, Heffner's reservations were understandable. There remained, of course, considerable scientific doubt. Ocean sediment research showed that there had been more than 30 cold-warming cycles in the last 2.5 million years, and some scientists cited stable or downward trends in global annual temperatures. Smog, some suggested, would contribute to a new ice age, not global warming.

It was a question of science—but it was also a matter of politics. The science was questionable, Nixon understood, but the politics appeared less so. Just one month before Moynihan wrote his memo, astronauts had walked on the moon and projected images of Earth, as a fragile whole, back to rapt audiences. Rachel Carson's seminal bestseller *Silent Spring* remained on the bestseller lists and workers remained hard at work cleaning up a large oil spill at Santa Barbara on California's pristine coast.⁶ Polls reflected exploding public sentiment for environmental protection. It was more than the wise-use conservation of the Progressive Era but the realization that modern life threatened world ecology.⁷ Air and water pollution, overpopulation, pesticides, and a myriad of other issues appeared related in the minds of a new majority of Americans. And Nixon

saw political advantage. Early environmental protections enacted during the presidencies of John F. Kennedy and Lyndon B. Johnson had won strong environmental support, but a growing number of Democrats, led in part by Maine Senator Edmund S. Muskie, appeared committed to pushing a new wave of antipollution legislation. The Republicans had an impressive record extending back to Theodore Roosevelt, Nixon understood, but he was not about to let Congress and the Democrats gain the upper hand. Given that the new environmentalists tended to oppose his ongoing Vietnam War, the better his advocacy was. In short, Moynihan's memo arrived at the perfect time to win presidential support, even if the president then cared more about votes than endangered species. Climate change was simply part of a bigger issue, an issue that both parties hoped to advance.

Forty years later, President Obama certainly understood. The debate over climate change still unfolded under the umbrella of environmental politics, still remained a partisan competition with Congress, and still revolved around science. The science and the political competition had changed, of course, but the template was set. Nixon quickly established a new federal bureaucracy that would prove critical to Obama's efforts. Throughout the Obama years, the Council on Environmental Quality (CEQ), created by the National Environmental Policy Act (NEPA) that Nixon had signed, strongly endorsed addressing climate change. In fact, in its first annual report in 1970, as if to follow Moynihan's memo, CEQ had devoted an entire chapter to the possibility of CO₂-based global warming. This had so impressed Delaware Senator J. Caleb Boggs that he had the entire chapter entered into the *Congressional Record*. Thirty-seven years later, in its last annual report before congressional Republicans eliminated the reporting requirement, CEQ still devoted an entire chapter to the global environment and climate change.⁸ Meanwhile, NEPA officially made it American policy to protect environmental quality, a statutory obligation that clearly empowered Obama's agenda. In fact, NEPA included provisions for required environmental impact statements, a mandate that environmentalists would continue to employ to block questionable fossil fuel operations during the Obama years. The Environmental Protection Agency (EPA), created by Nixon, would, of course, assume a leading role in combating climate change during Obama's presidency. Perhaps more obvious, the research of the Nixon-era National Oceanic and Atmospheric Administration (NOAA) would continue to produce data invaluable in the ongoing scientific debate.

Obama genuinely cared about climate change, no doubt because of the work of Nixon-era scientists. As Nixon wrestled with Watergate, the Global Atmospheric Research Program launched with strong American support its Atlantic Tropical Experiment, the largest climate change operation to date, involving geostationary satellites, a dozen well-instrumented aircraft, and more

than 20 ships to support a network of ocean stations. The project, a study that if carried out would have explained the infamous El Niño phenomenon much earlier, had originally been planned for the tropical Pacific, but it did eventually produce data that swayed a growing majority of climate scientists that global warming was real. At the same time, the Joint Organizing Committee began planning its first truly global experiment—a massive project whose planning extended from the Nixon years into the presidency of James E. “Jimmy” Carter and which collected data until the 1980s. The research proved critical in, again, swaying the scientific community to consensus.⁹

If the Nixon years helped lay the foundational science that would sway Obama, Nixon’s dynamic political calculations had ripples years later as well. Nixon’s early agenda to win the new environmental vote produced stronger air and water pollution legislation, new regulations for pesticides, new protections for endangered species and ocean mammals, and new land management policies, among other accomplishments that remain cornerstones of environmental law and policies today. Among Nixon’s initiatives with direct implications for climate change were proposals to have the Department of the Interior better regulate surface mining for environmental damage and a temporary moratorium on new coal leasing, provisions the coal industry fought. This impressive record may have stood the test of time, but it did not translate into more votes as Nixon had hoped. As his first term neared its end, Nixon began to surmise that he could never win the environmental vote. The Democrats would always promise more. As Nixon succinctly put it, “You can’t out-muskie Muskie.”¹⁰ Moreover, the administration’s new regulations were angering his natural business constituency. Voters, Nixon now concluded, would vote their pocketbooks. The environmental vote was wide but not deep. Accordingly, Nixon’s second term witnessed an astounding political shift, a withdrawal from environmental advocacy that would anger environmentalists and embolden their opponents.

The Arab oil embargo following the Yom Kippur War in 1973 quickened Nixon’s environmental retreat. The nation needed oil, and while Nixon encouraged conservation, the thrust of his “Project Independence,” unveiled in November 1973, was greater production of fossil fuels. The EPA faced budget cuts. Administration support for the Alaskan oil pipeline grew, and the White House soon joined with the coal industry to weaken the regulatory provisions it had earlier proposed. Nixon demanded new drilling on the outer continental shelf and of oil shale deposits and signed the Energy Petroleum Allocation Act of 1973, which sought to stimulate domestic oil production by raising the controlled price of a barrel by one dollar. Increasingly, Republicans argued that environmental regulations hampered economic growth. The two objectives were mutually exclusive, the GOP implied, encouraged by the powerful oil interests. A growing number of Democratic congressmen complained about

the administration's new stance, and many environmental groups were more explicit, endorsing those who did. In short, by the end of the Nixon years, it was becoming obvious that environmental protection was a Democratic issue more than a Republican one. Increasingly, partisanship defined all environmental issues.¹¹

Obama could certainly understand. Assuming office in 2009, he operated within a milieu in which the environment had devolved almost into a litmus test for partisan affiliation. The shift that had begun during Nixon's second term had culminated in the early twenty-first century. "We know that global climate change is one of the biggest threats of this generation—an economic, environmental, and national security catastrophe in the making," the 2012 Democratic platform read. The party "affirm[ed] the science of climate change" and committed to "reducing the pollution that causes [it]."¹² The Republicans were quite the contrast. Their 2012 platform spoke of "tapped and untapped" natural energy resources, the development of which "must be the role of public officials." The platform spoke of new oil and coal initiatives and supported the controversial Keystone XL oil pipeline from Canada. It spoke of the EPA's "war on coal." It did not, however, even once mention climate change.¹³

This partisanship would vex the new Democratic president. As David B. Bancroft, president of the Council on Environmental Affairs, recalled, "Obama quickly found out that his administration was not going to get Republican congressional cooperation."¹⁴ Three years prior, former Democratic Vice President Albert A. "Al" Gore, a partisan lightning rod, had produced the Academy Award-winning documentary *An Inconvenient Truth* (2006), highlighting the role of carbon emissions in global warming. The film was, many Republicans believed, pure demagoguery, an unfair assault on America's energy-based economy. In 2014, the fact-checking website of the *Tampa Bay Times*, Politifact, found that only 8 of the 278 congressmen in the Republican caucus had made comments supporting the science of climate change. It had become common for Republicans to suggest that the science was still unsettled, noted Nobel Prize-winning economist and *New York Times* columnist Paul R. Krugman. "I am not a scientist" had become a safety valve for Republicans anxious to avoid the issue.¹⁵ Of course, some in the GOP had grown more openly hostile. In 2005, Texas Congressman Joe L. Barton, who had chaired a number of energy and environmental related congressional committees, launched an investigation of scientific reports affirming climate change. It was a "witch-hunt," the *Washington Post* reported, citing the opinions of leading climate scientists.¹⁶

As Democrats in the Obama administration lamented what they called the "Republican war on science," many in the GOP gave them strong ammunition.¹⁷ In 2015, Lamar S. Smith, another Texas congressman with strong connections to the oil industry, subpoenaed documents from a NOAA study

supporting climate change. It was an obvious attempt at intimidation; a group of more than 600 scientists wrote Kathryn D. Sullivan, head of the agency, urging her to stand up to the “bullying.” NOAA scientists should have the clear “ability to pursue research and publish data and results regardless of how contentious the issue may be.”¹⁸ The partisan warfare, it was clear, had settled on the battlefield of science. Once the sole domain of academia and large corporations, their work in obscure labs and papers, scientists now found their conclusions and publications grist for the political mill, weapons for politicians.

While some scientists bemoaned their new role, arguing in many instances that lay people did not understand their complicated analysis or deliberately twisted their conclusions, this battlefield too had its roots in the Nixon administration. The first significant environmental fights over science took place more than 40 years before Congressman Smith and NOAA’s Sullivan battled in front of the cameras. Early in 1969, Nixon still hoped to win the environmental vote, but supported development of the so-called supersonic transport, or SST, a plane that could move commercial passengers at speeds greater than the speed of sound. He worried that the Soviet Union and several European countries were developing their own planes and did not want the United States to fall behind. Many environmentalists, however, complained of the sonic boom—noise pollution they argued. To mollify them, Nixon decided to propose only one prototype, not a full fleet. Unfortunately for Nixon, however, this compromise hardly ended the controversy. Into the debate came scientists at the National Center for Atmospheric Research (NCAR). High-level supersonic flight, they theorized, eroded the world’s ozone layer, a protective sheath in the atmosphere that reflected solar heat and thus mitigated warming. Not all scientists agreed with this hypothesis and the Department of Transportation began a four-year monitoring program, the Climate Impact Assessment Program, aimed specifically at the question of the SST. Meanwhile, the NCAR, a nongovernmental body but one heavily dependent upon public funds, found itself facing financial pressure. In the end, Congress blocked development of the SST largely because of the noise and cost concerns, but for the first time, scientists had apparently drawn the ire of politicians.¹⁹

In the larger sense, the success of the environmental movement during Nixon’s first term embedded requirements and regulations into statutes whose legalese was often as complicated as the scientific jargon they cited. Simply put, the new laws and their implementation were open to interpretation. Whereas before protesters and grassroots activists had guided the environmental agenda, now lawyers with briefcases determined its outcome. When Nixon began to retreat in his second term, beginning the larger Republican metamorphosis, the oil and coal industry and a number of other business interests rushed to flush out ambiguities in the law or science. One good example with consider-

able implications for climate change was implementation of the Clean Air Act amendments of 1970, one of the crown jewels of Nixon's early environmentalism. The law provided tough federal regulation of any pollutants designated harmful to air quality and called for national ambient air quality standards and limits on specific pollutants, including three that related to auto emission standards: carbon monoxide, nitrogen dioxide, and hydrocarbons. While none of the three were global warming gases, all quickly became embroiled in scientific debate over whether the standards were technically possible. The debate raged throughout the remainder of Nixon's presidency and included discussions of delayed deadlines, exemptions, and new catalyst technology. The science soon entered the courtroom with auto company lawsuits.²⁰

The law also, however, had implications more directly for climate change. It called for limits on sulfur dioxide, a pollutant, emitted as an acrid yellow gas from stationary sources, such as factories. In 1971, with Nixon still entertaining hopes of winning the environmental vote, the EPA proposed taxing sulfur dioxide as a way of reducing its harmful emissions. The coal industry protested and the energy crisis of the 1970s soon strengthened its hand. Nixon, feeling the pressure, retreated on his proposed tax and the tougher auto emission standards. Still, however, the scientific debate did not end. Not only was sulfur dioxide converted to sulfuric acid, contributing to the "acid rain" problem prominent in the 1990s, some scientists claimed that sulfur dioxide contributed to ice crystals in the upper atmosphere. When these crystals migrated upward into the stratosphere, they contributed to water vapor, which at that level constituted a greenhouse gas. Other scientists, however, quickly countered. In the atmosphere, they argued, sulfur dioxide was also transformed into sulfate aerosol, a fine particle that reflected solar radiation and also served as a condensation nuclei for cloud droplets, which served the same purpose. By the time of the Obama administration, scientists debated geoengineering, using sulfur dioxide to counter the climate change impact of CO₂. In sum, the scientific debate was complex, controversial, and politically significant during the Nixon years—a reality that still remained for Obama.²¹

President Obama found Nixon's Clean Air Act amendments of 1970 particularly helpful in advancing the fight against climate change, igniting another debate over the science of it all. When Obama first came into office in early 2009, he advocated a so-called cap-and-trade bill designed by Henry A. Waxman, Democratic representative from California, and Edward J. Markey, Democratic senator from Massachusetts.²² Under the plan, the first one ever designed for a national assault on global warming, the government would set a limit, or a "cap," on the total amount of all greenhouse gases that could be emitted nationally, and the cap periodically lowered. Per the statute, the appropriate government agency would then sell "allowances" to emit such gases up to the

limit. Businesses could not emit more gases than they had allowances for, but could exchange them on an open market, or trade them, which would establish an economic incentive for reduction. Obama pushed the plan through the House, but Republicans blocked it in the Senate.²³ Largely frustrated in his efforts to combat climate change in a systemic way throughout his first term, and of course preoccupied with the recovery from the so-called Great Recession of 2008, Obama hit upon the Clean Air Act as a way to act unilaterally as his second term began, just as he warned in his 2013 State of the Union. Interpreting the law broadly and noting that it gave the EPA significant ability to define and regulate what constituted air pollutants, Obama announced that all greenhouse gases, all carbon emissions, constituted such a pollutant. As such, the EPA already had the authority to regulate them according to the Nixon-era law.²⁴

Obama unveiled his plan with as much fanfare as Nixon had done announcing NEPA in 1970. In June 2013, Obama released an extensive climate action plan that called for cutting CO₂ and all greenhouse gases. It was a “moral obligation to future generations,” Obama declared.²⁵ What followed were a series of executive orders, presidential memoranda, and EPA regulations covering every aspect of fossil fuel production, most notably establishing national limits for CO₂ sources from the nation’s existing power plants. It established for each state individual emission reduction targets specific to its needs and circumstances, a provision that reflected the Clean Air Act’s initial construction. It empowered local and state officials to plan for climate changes and it directed NOAA and the National Aeronautics and Space Administration to improve further climate data. The plan also called for reduced hydrofluorocarbon production, increased renewable energy source use, and more strictly regulated automotive emissions standards, among others. Reports on progress were mandatory.²⁶

Without surprise, Republicans howled in protest, claiming that the science did not warrant the actions and that the president had grossly overstated his authority. Congress had not intended the Clean Air Act in such a way, they claimed, and promised litigation. Aware that the U.S. Supreme Court had earlier upheld broad interpretations of the law’s provisions, Obama proceeded confidently.²⁷ As the 2016 presidential election approached, many Republicans in Congress pushed for pressure through the appropriations process. Nixon had battled Congress from the other side of the issue during his second term, but the partisan warfare was just as acrimonious.

Throughout it all, like Nixon, Obama used his presidential bully pulpit liberally. When Nixon, for example, selected 1 January 1970 to sign NEPA, he declared that it was “particularly fitting” to do so. The 1970s must, Nixon declared, “be the years when America pays its debt to the past by reclaiming the purity of its air, its water, and our living environment.”²⁸ While never known

for his soaring rhetoric like Obama, Nixon nevertheless did his best to couch his initiatives as lofty, moral imperatives. Indeed, throughout his first-term environmental offensive, Nixon took every opportunity to couch the environment as a critical issue and the president as the key player. Obama built on this foundation. From his first inaugural until the end of 2015, Obama spoke of climate change in his official comments almost 800 times, and at times quite emotionally.²⁹ While Nixon's presidential leadership shifted and Obama's did not, both men projected the executive branch into issues of environmental quality in a way not seen since Theodore Roosevelt. Neither, it appeared, had much opinion of Congress when it disagreed.

One of the key goals of Obama's climate action plan was to lead international efforts to combat the problem. Here, yet again, the Nixon era set the template. With environmentalism growing around the world early in the 1970s, the United Nations planned for the Conference on the Human Environment in Stockholm, Sweden, in June 1972. Moynihan's 1969 memorandum to Ehrlichman had noted that climate change was a natural issue for NATO and members of the Nixon administration recognized that pollution crossed national boundaries and, as such, might require international cooperation. The meeting at Stockholm, Nixon's CEQ Chairman Russell E. Train argued, was a "major opportunity for positive U.S. leadership in world affairs."³⁰ As preparation for Stockholm commenced, Nixon also sought to use the environment as a way to encourage détente with the Soviet Union. Bilateral discussions commenced and, in 1972, resulted in an agreement for joint research and the exchange of scientists in several key environmental areas, including climate change. Nixon also tried to reach an agreement with the People's Republic of China on atmospheric nuclear testing, but made little progress.³¹

Stockholm was a significant event in modern environmental history, and as Train hoped, the United States launched its first significant environmental diplomacy, a field that later played prominently in the Obama administration. In Stockholm, delegates from 114 countries along with 400 reporters and representatives of nongovernmental organizations, debated for almost two weeks. In the end, the delegates agreed on a "Declaration of Principles" and an "Action Plan" to implement them. With the science of climate change still unsettled, the only significant accomplishment was to further expand and coordinate international monitoring and research. With Train at the fore, the American delegation unveiled Earthwatch, a research program focused primarily on monitoring the oceans and atmosphere for long-term trends. To encourage the reduction of fossil fuels and other environmental compliance, the conference established a fund to assist poorer, developing nations. The issue of funding, however, proved contentious. The environmentalist Train argued for an American contribution of \$100 million, but the final figure fell significantly short at

\$40 million. The developing world argued for greater compensation, insisting that the rich nations had already benefitted from industrial growth and were prohibiting their own countries' prosperity. The United States and Europe had caused much of the pollution but expected the Third World to suffer the most economically for it. As Obama would learn, this dynamic remained a constant in the years of international environmental diplomacy that followed.³²

There was another problem at Stockholm that was less obvious. While the conference sought to portray all problems from pollution to soil depletion to ecological diversity in a global context, to a great degree, each of these problems still had sources and impacts that could be mapped onto existing geographical spaces controlled by established rulers and bureaucratic agencies. Pitched as global, these issues all fit, if somewhat awkwardly, into established international politics centered on measurable data and the economically interested nation state. Climate change, by contrast—fluid, borderless, and dynamic—had less obvious attachment to local or regional politics. It was still vague, not fully understood, and enjoyed no clear interested constituency. Stockholm was a start, but real progress would have to wait for leaders to follow.³³

The reaction to Stockholm was telling. Environmentalism remained strong, and the 1973 Energy Crisis had not yet unfolded. Conservative Republicans had successfully fought the higher financial contributions that Train had advocated, and the Department of Commerce, undoubtedly representing the interest of a number of industries, had openly worried about possible new regulations on the horizon. For the most part, however, polls and newspaper editorials demonstrated wide public approval and strong bipartisan congressional support still remained. Train spoke of “capitalizing on the momentum developed at Stockholm” as Congress inserted praise of the American delegation into the *Congressional Record*.³⁴ Not yet fully appreciating how a Republican-led backlash to environmentalism loomed, Train agreed to lead a delegation to NATO's newly established Committee on the Challenges of Modern Society (CCMS). The CCMS was a product of Moynihan's efforts after his 1969 memorandum to Ehrlichman. Not surprisingly, several of its pilot programs aimed at cutting reliance on fossil fuels and combating possible climate change.³⁵

By the early 1980s, most scientists had discarded the earlier, widely publicized theories of global cooling and begun to coalesce around the science of global warming. The First World Climate Conference took place in Geneva in 1979, and almost a decade later in 1988, the Intergovernmental Panel on Climate Change was formed under the auspices of the United Nations and directly flowing from the Stockholm Conference. At the same time, back in the United States, the partisan rift that had begun during Nixon's second term had expanded into a true chasm. A second round of energy shortages dogged the presidency of Democrat Carter and helped launch the tenure of Republi-

can Ronald W. Reagan. Even as the science supporting climate change became stronger, Reagan dismissed the central tenets of environmentalism. His anti-regulatory stance and his efforts to defund the EPA and all climate change research meant that, unlike at Stockholm, the United States played a much smaller role in the unfolding environmental diplomacy. In Congress, growing numbers of Republicans joined the administration in its ideological drift to the Right and many discounted the Intergovernmental Panel on Climate Change as a liberal organization bent upon a one-world government.³⁶

Nothing, however, put the climate more in the public eye than the ugly environmental events at the end of the Reagan presidency. A horrible heat wave hit the Eastern United States and a drought devastated the Midwest farm belt. The Mississippi River hit record low water levels and fires ravaged much of the West—all before a tremendous hurricane season. Suddenly, climate change was front-page news. Magazines, such as *Time*, *Sports Illustrated*, and *Newsweek*, all ran major stories on global warming. In the middle of the climatic upheaval and feeling pressure from America's allies, Reagan agreed to sign the so-called Montreal Protocol in 1987. While the agreement committed nations to cutting substances that depleted the ozone layer, Reagan worked hard to weaken the standards and remained resistant to the overall science. This brought him into direct conflict with a key ally and friend, British Prime Minister Margaret H. Thatcher, who acknowledged the science of climate change.³⁷ Reagan's successor, Republican George H. W. Bush, feeling the new pressure, promised to counter the "greenhouse effect" with the "White House effect," a hint that his administration might shift American policy again. Bush did push through the Clean Air Act Amendments of 1990, which sought to strengthen protections for the ozone layer by limiting chlorofluorocarbons, but in the end Bush largely found the growing resistance in his own party difficult to overcome.³⁸

As his presidency wound down in 1992, Bush faced a dilemma when the United Nations sponsored a new major conference in Rio de Janeiro on the 20th anniversary of Stockholm. The United Nations Conference on Environment and Development, known as the Earth Summit, acknowledged a scientific consensus and debated significant, legally binding cuts in CO₂ emissions. While Bush ended up signing the UN Framework Convention on Climate Change (UNFCCC), committing all signatory nations to cutting greenhouse gases, the United States successfully fought specific emission targets and enforcement mechanisms and incurred the wrath of other nations as a result. Just as in Stockholm, the rich and poor nations did political battle, but unlike the earlier conference, the president received little praise upon his return. The Senate ratified the accord even as a growing number of Democrats decried it as toothless and an equally growing number of Republicans lambasted it as more expensive bureaucracy built on questionable science.³⁹

President William J. “Bill” Clinton, a Democrat, promised more. By the 1990s, however, the partisanship had metastasized further. When Clinton negotiated and signed the Kyoto Protocols in December 1997, which provided the specific, binding limits on emissions lacking from Rio and encouraged by the UNFCCC, Senate Republicans led a successful campaign against the treaty, noting that it did not require adequate reductions from developing nations. Once again, just as with the Nixon administration at Stockholm, the chasm between rich and poor countries proved problematic. In the end, Clinton, assured of the measure’s defeat, did not submit it for ratification. At the same time, a number of leading oil and coal companies formed the Global Climate Coalition, committed to disputing the now widely accepted science. Its members regularly contributed financial support to the congressional Republicans who took up their cause. When the coalition dissolved in the early 2000s, many of its supporters finding increasing difficulty in denying the consensus, a number of wealthy Republican donors and organizations took the coalition’s place. Most acknowledged global warming but disputed an anthropocentric cause.

When Republican George W. Bush assumed the presidency in 2001, the growing scientific consensus was enough to get a new bill to limit greenhouse gases before Congress but not enough to overcome the entrenched partisanship. The Climate Stewardship Act, a relatively moderate proposal that foretold the cap-and-trade bill that Obama would later push, established a national greenhouse database, among other proposals, and was introduced several times by John S. McCain, Republican senator from Arizona, and Joseph I. “Joe” Lieberman, Democratic senator from Connecticut, first in 2003 and then again with revised provisions in 2005 and 2007. Each time, however, an overwhelming majority of Republicans blocked Senate action.⁴⁰ As Bush officially rejected implementation of the Kyoto Protocol, formally ending all hope of its approval, Democrats took testimony from scientists who claimed that the administration had applied pressure to change research results. Feeling his own pressure from the Group of Eight developed nations (G8), Bush proposed a plan to reduce greenhouse gases relative to economic output, but Democratic critics quickly noted that with economic growth assured, the greenhouse gases would continue to grow as well. It was, they argued, a sham. Published reports, moreover, claimed that Republican think tanks were colluding with the oil industry in coordinating a campaign to deny the science.⁴¹

The momentum, it was obvious, was building toward the presidency of Barack Obama. The foundation for activism and partisan discord had grown with each new president and agreement since Nixon’s initial diplomacy. Taking his cue from Nixon, Obama immediately set out to tackle the issue. Like Nixon, he immediately felt resistance from Congress. Scholars have noted Nixon’s “imperial presidency,” his tendency to expand executive authority. Almost 50 years

later, critics decried Obama's expansive interpretation of existing legislation to augment his own power. It was unconstitutional, they claimed, continually seeking redress from the judiciary.⁴² The many executive orders and memoranda that Obama used to implement his climate action plan after his 2013 State of the Union infuriated Republicans. Like Nixon, Obama did not care about angering his opposition. He plowed ahead.

As scientists noted that 2014 was the hottest year on record—only to be supplanted by 2015—Obama refused to approve the controversial Keystone XL oil pipeline from Canada, pending for years and in many ways a surrogate for the entire climate change debate.⁴³ In December 2015, as both parties prepared for the fight over his successor, Obama sought to assure his environmental legacy. Meeting with leaders from almost 200 nations around the world, Obama signed the Paris Accords, a truly landmark agreement that reflected just how far the climate debate had grown since Nixon. The agreement established no legally binding emission standards, which would have required Senate ratification and thus assured a quick death at the hands of the Republican congressional majority. Each nation, rather, agreed to set up its own targets and programs to achieve a broad goal of halving carbon emissions, reporting back to the others on five-year intervals using a universal accounting system and independent reviews. The system allowed for the consideration of new science and promised the publicity to assure compliance. Tensions were once again high between the rich and poor, but in the end, the agreement did assure even the developing world's compliance with the promise of new aid. "This agreement sends a powerful message," Obama proudly declared, noting that the "skeptics" had been proved wrong and that the future was going to be different.⁴⁴

The future, of course, is never assured. Every major Republican presidential candidate in the 2016 election questions the science of climate change.⁴⁵ Scientific and political battles surely loom, just as they have unfolded in the past. What has been assured, however, is that Obama's environmental legacy will stand well into the future. His presidential actions have set the parameters for his successors whomever they may be—just like Nixon. In the end, Richard Nixon and Barack Obama, a truly odd couple, have helped address the concerns that Daniel Patrick Moynihan first raised so long ago. Nixon helped pave the road that Obama has traveled, and both deserve the legacies they have earned.

Notes

1. Daniel Patrick Moynihan to John Ehrlichman, memorandum, 17 September 1969, Nixon Presidential Library and Museum (NPLM), Yorba Linda, CA, <http://www.nixonlibrary.gov/virtuallibrary/releases/jul10/56.pdf>.
2. Barack H. Obama, "Address before a Joint Session of Congress on the State of the

- Union” (speech, U.S. House Chamber, Washington, DC, 12 February 2013), <http://www.presidency.ucs.edu/ws/index.php?pid=102826&st=climate&st1=change>.
3. Joshua P. Howe, *Behind the Curve: Science and the Politics of Global Warming* (Seattle: University of Washington Press, 2014), 11–12.
 4. Bert Bolin, *A History of the Science and Politics of Climate Change: The Role of the Intergovernmental Panel on Climate Change* (New York: Cambridge University Press, 2008), 19–25.
 5. Hubert Hefner to Daniel P. Moynihan, memorandum, 26 January 1970, NPLM, <http://www.nixonlibrary.gov/virtuallibrary/releases/jul10/55.pdf>.
 6. Rachel Carson, *Silent Spring* (New York: Houghton Mifflin, 1962).
 7. During the Progressive Era, the United States entered a period of extensive and vigorous reform, and the environment emerged as one of the topics of the national conversation. The utilitarian conservationists, such as President Theodore Roosevelt, argued for wise use of resources in contrast to the preservationists, such as John Muir, who wanted to isolate natural areas to keep them pristine and to protect them from human depletion. See Ian Tyrrell, *Crisis of the Wasteful Nation: Empire and Conservation in Theodore Roosevelt's America* (Chicago: University of Chicago Press, 2015) for a specific discussion of conservation in that era. For a more general discussion of the period, see Michael McGerr, *A Fierce Discontent: The Rise and Fall of the Progressive Movement in America, 1870–1920* (New York: Oxford University Press, 2005).
 8. *Environmental Quality: The First Annual Report of the Council on Environmental Quality* (Washington, DC: CEQ, 1970), 93–104; David Doniger, “The Clean Air Act and Climate Change: Where We’ve Been and Where We’re Going” (speech, Fedder Lecture on Environmental Law, Carey School of Law, University of Maryland, Baltimore, 14 November 2014), http://switchboard.nrdc.org/blogs/ddoniger/the_clean_air_act_and_climate.html; and *Environmental Quality: The World Wide Web, The 1997 Annual Report of the Council on Environmental Quality* (Washington, DC: CEQ, 1997), 185–200, <https://ceq.doe.gov/nepa/reports/1997/chap11.pdf>. For a more general account of how partisan politics affected science, see Naomi Oreskes and Eric M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury Press, 2010).
 9. Bolin, *A History of the Science*, 25–27.
 10. J. Brooks Flippen, *Nixon and the Environment* (Albuquerque: University of New Mexico Press, 2000), 80–157; Nixon quoted on page 152.
 11. Ibid., 189–219.
 12. Democratic Party, “The 2012 Democratic Platform,” Democrats, 2012, <https://www.democrats.org/party-platform>.
 13. Republican Platform Committee, *2012 Republican Platform: We Believe in America* (Washington, DC: Republican National Committee, 2012), <https://prod-static-ngop-pbl.s3.amazonaws.com/docs/2012GOPPlatform.pdf>.
 14. David B. Bancroft, *Obama Green: The Environmental Leadership of President Obama* (David B. Bancroft, 2011), 185.
 15. Paul Krugman, “Republicans’ Climate Change Denial Denial,” *New York Times*, 4 December 2015, http://www.nytimes.com/2015/12/04/opinion/republicans-climate-change-denial-denial.html?_r=0.
 16. “Hunting Witches,” *Washington Post*, 23 July 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/22/AR2005072201658.html>.
 17. Chris Mooney, *The Republican War on Science* (New York: Basic Books, 2006).
 18. Nell Greenfieldboyce, “Is This Congressman’s Oversight an Effort to Hobble Climate Science?,” National Public Radio, 7 December 2015, <http://www.npr.org/2015/12/07/458476435/is-this-congressmans-oversight-an-effort-to-hobble-climate-science>.
 19. Howe, *Behind the Curve*, 51–55; and Mel Horwitch, *Clipped Wings: The American SST Conflict* (Cambridge, MA: MIT Press, 1982).
 20. Clean Air Amendments of 1970, Pub. L. No. 91-604 (1970), <http://uscode.house.gov/statutes/pl/91/604.pdf>; and Flippen, *Nixon and the Environment*, 192–93.
 21. “Change of Direction: Do SO₂ Emissions Lead to Warming?,” *World Climate Report*

- (blog), 22 April 2005, <http://www.worldclimatereport.com/index.php/2005/04/22/change-of-direction-do-so2-emissions-lead-to-warming/>; and David Rotman, “A Cheap and Easy Plan to Stop Global Warming,” *MIT Technology Review*, 8 February 2013, <http://www.technologyreview.com/featuredstory/511016/a-cheap-and-easy-plan-to-stop-global-warming/>.
22. For more on Waxman’s and Markey’s American Clean Energy and Security Act of 2009, see H.R. 2454, 111th Cong. (2009–10), <https://www.congress.gov/bill/111th-congress/house-bill/2454/all-actions>.
 23. Introduced as the American Clean Energy and Security Act of 2009. See John M. Broder, “‘Cap and Trade’ Loses Its Standing as Energy Policy of Choice,” *New York Times*, 25 March 2010, http://www.nytimes.com/2010/03/26/science/earth/26climate.html?_r=0.
 24. Michael A. Lindenberger and Sylvan Lane, “Despite Push-back, Obama Aggressive on Climate Change,” *Dallas (TX) Morning News*, 11 August 2015, <http://www.dallasnews.com/business/energy/20150807-despite-push-back-obama-aggressive-on-climate-change.ece>.
 25. Executive Office of the President, *The President’s Climate Action Plan* (Washington, DC: White House, 2013), 4, <https://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>.
 26. Ori Gutin and Brendan Ingargiola, “Fact Sheet: Timeline of Progress Made in President Obama’s Climate Action Plan,” Environmental and Energy Study Institute, 5 August 2015, <http://www.eesi.org/papers/view/fact-sheet-timeline-progress-of-president-obama-climate-action-plan>.
 27. *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007); *American Electric Power Company, Inc. v. Connecticut*, 564 U.S. (2011); and *Utility Air Regulatory Group v. Environmental Protection Agency*, 573 U.S. (2014).
 28. Federal Register, *Public Papers of the Presidents of the United States, Richard Nixon, 1971: Containing the Public Messages, Speeches, and Statements of the President* (Washington, DC: National Archives and Records Service, 1971), 2–3.
 29. A list of President Barack Obama’s comments on climate change may be found on the website hosted by the American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php>.
 30. Russell Train to John Ehrlichman, memorandum, 20 September 1971, folder Ex FG 6-17, CEQ, 1 September 1971–27 December 1972, Box 1, CEQ Files, White House Central Files (WHCF), NPLM, NARA.
 31. Fact Sheet, US-USSR Environmental Agreement, 18 May 1972, Folder “CEQ, 1972–73, 2 of 2,” Box 43, John Whitaker Files, WHCF, NPLM, NARA; and Boris Savchuk, “Scientific Agreements at Moscow Summit,” *BioScience* 22, no. 7 (July 1972): 424.
 32. Russell Train, interview with the author, hereafter Train interview, 8 July 1998; R. Stephen Berry et al., “What Happened at Stockholm: A Special Report,” *Science and Public Affairs: Bulletin of the Atomic Scientists* 28, no. 7 (September 1972): 46–48; and Joseph M. Petulla, *American Environmentalism: Values, Tactics, Priorities* (College Station: Texas A&M University Press, 1980), 168.
 33. Howe, *Behind the Curve*, 91–92.
 34. Russell Train to Richard Nixon, memorandum, 19 June 1972, Public Papers of Russell Train, Library of Congress, Washington, DC; and Edmund Muskie, “Stockholm Conference on the Human Environment” (statement, Congressional Record, Senate, Washington, DC, 25 May 1972), 18954.
 35. Train interview.
 36. Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics and the United States, 1955–1985*, in collaboration with Barbara D. Hays (Cambridge: Cambridge University Press, 1987), 491; Benjamin Kline, *First Along the River: A Brief History of the U.S. Environmental Movement* (San Francisco, CA: Acada Books, 1997), 104–8; George P. Shultz, “A Reagan Approach to Climate Change,” *Washington Post*, 13 March 2015, https://www.washingtonpost.com/opinions/a-reagan-model-on-climate-change/2015/03/13/4f4182e2-c6a8-11e4-b2a1-bed1aaea2816_story.html; United Nations

- Environment Program (UNEP), "The Montreal Protocol on Substances that Deplete the Ozone Layer," UNEP Ozone Secretariat, 2015, <http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer>; and Howe, *Behind the Curve*, 167. See also C. Brant Short, *Ronald Reagan and the Public Lands: America's Conservation Debate, 1979–1984* (College Station: Texas A&M University Press, 1989).
37. Rupert Darwall, *The Age of Global Warming: A History* (London: Quartet Books Ltd., 2013), 105–7.
38. A. C. Thompson, "Timeline: The Science and Politics of Global Warming," Frontline, 24 April 2007, <http://www.pbs.org/wgbh/pages/frontline/hotpolitics/etc/cron.html>. For a discussion of policy in the years between Nixon and Obama, see James R. Skillen, *Federal Ecosystem Management: Its Rise, Fall, and Afterlife* (Lawrence: University Press of Kansas, 2015).
39. Howe, *Behind the Curve*, 175–79, 181; and "Earth Summit: The Earth Summit Agreements," UN Department of Public Information, 23 May 1997, <http://www.un.org/geninfo/bp/envirp2.html>.
40. Darwall, *The Age of Global Warming*, 230.
41. *Scientific Integrity in Policymaking: An Investigation into the Bush Administration's Misuse of Science* (Cambridge, MA: Union of Concerned Scientists, 2004); and Otis L. Graham Jr., *Presidents and the American Environment* (Lawrence: University of Kansas Press, 2015), 335.
42. See Arthur M. Schlesinger Jr., *The Imperial Presidency* (New York: Houghton Mifflin, 1973); Robert Farley, "Obama and Executive Overreach," FactCheck, 7 July 2014, <http://www.factcheck.org/2014/07/obama-and-executive-overreach/>; and Robert Spitzer, "President Obama's Recent Vetoes Were Unconstitutional. Congress Should Sue Him," *Washington Post*, 30 December 2015, <https://www.washingtonpost.com/posteverything/wp/2015/12/30/president-obamas-recent-vetoes-were-unconstitutional-congress-should-sue-him/>.
43. Brandon Miller, "2015 Is Warmest Year on Record, NOAA and NASA Say," CNN News, 20 January 2016, <http://www.cnn.com/2016/01/20/us/noaa-2015-warmest-year/>; and Coral Davenport, "Citing Climate Change, Obama Rejects Construction of Keystone XL Oil Pipeline," *New York Times*, 6 November 2015, http://www.nytimes.com/2015/11/07/us/obama-expected-to-reject-construction-of-keystone-xl-oil-pipeline.html?_r=0.
44. Obama is quoted in Coral Davenport, "Nations Approve Landmark Climate Accord in Paris," *New York Times*, 12 December 2015, http://www.nytimes.com/2015/12/13/world/europe/climate-change-accord-paris.html?_r=0.
45. Rebecca Kaplan and Ellen Uchimiya, "Where the 2016 Republican Candidates Stand on Climate Change," CBS News, 1 September 2015 <http://www.cbsnews.com/news/where-the-2016-republican-candidates-stand-on-climate-change/>.